

S/N 09/253.611PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Paul A. Farrar

Examiner: Ron Pompey

Serial No.: 09/253,611

Group Art Unit: 2812

Filed: February 19, 1999

Docket: 303.572US1

Title: SELECTIVE DEPOSITION OF SOLDER BALL CONTACTS

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CENTRAL FAX CENTERINFORMATION DISCLOSURE STATEMENT

JAN 07 2004

Assistant Commissioner for Patents
Washington, D.C. 20231

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicant further request that a copy of the 1449 form, initialled by the Examiner to indicate that all listed citations have been considered, be returned with the next official communication.

Under 37 C.F.R. §1.97(b)(3), it is believed that no fee or certificate is required with this Information Disclosure Statement.

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

PAUL A. FARRAR

By his Representatives,

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Date

Jan. 17, 2002

By

Daniel J. Kluth
Daniel J. Kluth

Reg. No. 32,146

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 17th day of January, 2002.

Name

Amy Moriarty

Signature

Amy Moriarty

Sheet 1 of 1

Form 1449*	Any. Docket No.: 303.572US1	Serial No. 09/253,611
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Applicant: Paul A. Farrar	
	Filing Date: February 19, 1999	Group: 2812

U.S. PATENT DOCUMENTS

**Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	4,273,859	06/16/1981	Mones, A., et al.	430	315	12/31/79
	4,789,648	12/06/1988	Chow, M., et al.	437	225	10/28/85

FOREIGN PATENT DOCUMENTS

**Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation Yes No
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OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

**Examiner Initial	
	Bohr, M.T., "Interconnect Scaling - The Real Limiter to High Performance ULSI", <u>IEEE</u> , pp. 241-244, (1995)
	Davis, J., et al., "A Priori Wiring Estimations and Optimal Multilevel Wiring Networks for Portable ULSI Systems", <u>Electronic Components and Technology Conference</u> , pp. 1002-1008, (1996)
	Gwennap, L., "IC Makers Confront RC Limitations, IBM Leads Move to Copper Interconnects; TI Deploys Low-k Dielectric", <u>Microdesign Resources</u> , Microprocessor Report, pp. 14-18, (August 1997)
	Kaanta, C., et al., "Dual Damascene: A ULSI Wiring Technology", <u>VMIC Conference</u> , 144-152, (June 1991)
	Lakshminarayana, S., "Multilevel Dual Damascene Copper Interconnections", Rensselaer Polytechnic Institute, Ph.d Thesis, pp. 1-205, (1997)
	Licata, T., et al., "Dual Damascene AL Wiring for 256M DRAM", <u>VMIC Conference</u> , 596-602, (June 1995)
	Luther, B., et al., "Planar Copper-Polyimide Back end of the Line Interconnections for ULSI Devices", <u>1993 Proceedings 10th International VLSI Multilevel Interconnection Conference</u> , pp.15-21, (1993)
	Ryan, J.G., et al., "The evolution of interconnection technology at IBM", <u>IBM J. Res. Develop.</u> , 39(4), pp. 371-381, (1995)
	Singer, P., "New Interconnect Materials: Chasing the Promise of Faster Chips", <u>Semiconductor International</u> , pp. 52-56, (1994)
	Taur, Y., et al., "CMOS scaling into the 21st century 0.1 micrometer and beyond", <u>IBM J. Res. Develop.</u> , 39(1/2), pp. 245-260, (1995)
	Vollmer, B., et al., "Recent advances in the application of collimated sputtering", <u>Thin Solid Films</u> , 247, pp. 104-111, (1994)

Examiner

Date Considered

*Substitute Disclosure Statement Form (PTO-1449)

**EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 809; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.